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ECA/NAIROBI

REPORT OF THE SEMINAR FOR LAWYERS ON DEVELOPMENT OF ENVIRONMENTAL PROTECTION LEGISLATION IN THE ECA REGION

(Addis Ababa, 29 September - 3 October 1980)

M80-2998

A. ORGANIZATION AND ATTENDANCE

1. The Seminar was convened by ECA under a joint project with the United Nations Environment Programme (UNEP) / Project ECA/UNEP FP/1002-79-01 (2000)/. The decision which led to the organization of the Seminar was taken as a follow-up to decision 35(III) of the third session of the Governing Council of UNEP in 1975.

2. The Seminar had been prepared by survey missions of four consultants to 15 selected African countries followed by an ECA/UNEP Expert Working Group Meeting on Environmental Protection Legislation held at ECA headquarters in March 1980. This Seminar will serve as a basic reference for inputs on environmental protection legislation into the Intergovernmental Regional Committee on Human Settlements meeting to be held in 1981 at ECA.

3. The Seminar for lawyers on Development of Environmental Protection Legislation in the ECA region was held at the headquarters of the Economic Commission for Africa from 29 September to 3 October 1980.

4. Experts from the following African countries participated in the Seminar: Botswana, Egypt, Ethiopia, Ghana, the Ivory Coast, Morocco, Swaziland and Tunisia.

5. The following organizations of the United Nations system participated in the Seminar: the Food and Agriculture Organization (FAO), the World Health Organization (WHO), the United Nations Development Programme (UNDP) and the United Nations Environment Programme (UNEP).

6. The following intergovernmental organizations were present as observers: the African Regional Organization for Standardization (ARSO) and the Organization of African Unity (OAU). Also present as observers were the following international bodies: the International Union for the Conservation of Nature and Natural Resources (IUCN) and the International Institute for Environment and Development (IIED).

7. The secretariat was assisted by consultants from the following institutions: the Ministry of Foreign Affairs, the United Republic of Cameroon, and the Universities of Sierra Leone, of Cotonou (Benin), of Ghana (Legon), of Nairobi (Kenya) and of Dar es Salaam the United Republic of(Tanzania).

8. The Seminar was opened by the Executive Secretary of ECA, Mr. Adebayo Adedeji. In his opening address, the Executive Secretary recalled the over-all purpose of the Seminar, namely to make use of environmental law machineries as management tools for environmental planning and control of development in the continent. Special emphasis was placed on the development of sectoral environmental legislation dealing with priority areas approved by the heads of State and Government of the Organization of African Unity at the first

OAU Economic Summit meeting held in Lagos in April 1980. The Lagos Plan of Action had identified the following areas of concern: environmental health, sanitation and the provision of safe drinking water supply; deforestation and soil degradation; desertification and drought; marine pollution and conservation of marine resources; environmental aspects of human settlements planning; mining development, air and water pollution control; and environmental education and training, legislation and information dissemination. The Executive Secretary noted that an important purpose of the Seminar was to contribute towards the preparation of guidelines on the development of environmental protection legislation in Africa. Such guidelines should be understood as a set of principles to be taken into account in the formulation of environmental legislation and not as model, universal guidelines which, owing to the socio-cultural diversity of the peoples and governmental priorities, were thought to be inadvisable.

9. In his address, the representative of the Executive Director of UNEP placed environmental law in the context of environmental management. Environmental law was described as a new dimension to national and international law. The representative of the Executive Director of UNEP noted that the Seminar could, funds being available, be the starting point of an important long-term African environmental law programme.

10. Mr. Paul Bamela Engo, Ministry of Foreign Affairs, the United Republic of Cameroon, was elected Chairman. Mr. Dominique Alhéritière, from the Food and Agriculture Organization (FAO) was elected Rapporteur.

B. AGENDA

11. The provisional agenda, as contained in document ECA/ECU/80/1 was adopted.

12. In presenting the agenda, the Chairman recalled that the main objectives of the Seminar were:

(a) To review existing environmental protection legislation in the African region;

(b) To examine the prospects for sectoral environmental legislation;

(c) To contribute towards the preparation of guidelines on the development of protection legislation in Africa.

13. The Chairman also invited participants to make comments on the consultants' mission reports, using the country reports as an input to the substantive points of the agenda mentioned above.

C. ACCOUNT OF PROCEEDINGS

14. The meeting had before it document E/CN.14/ECU/2 entitled "Survey and Analysis of Environmental Protection Legislation in Selected African Countries" (summary of consultants mission reports), as well as country reports from Botswana, Burundi, Ethiopia, Ghana, the Ivory Coast, Morocco, Swaziland and Tunisia.

15. The participants introduced amendments and precisions to the survey mentioned above which on the whole was found satisfactory. The survey will be duly amended by the secretariat for future distribution and will serve as background paper to an eventual intergovernmental meeting on environmental legislation in Africa.

16. In the course of the debate the point was made that customary laws and practices which tended to be considered conducive to the enforcement of environmental legislation sometimes were also an obstacle to such enforcement. One participant pointed out that the survey had correctly emphasized the serious problem of solid wastes and specific substances disposal. He found, however, that visual and aesthetic pollution had been somewhat overlooked and that less attention had been paid to the rural environment compared to the amount of information provided by the survey on urban environmental matters. He further mentioned that the problems resulting from the massive migration from rural to urban areas should be solved by adequate planning rather than envisaging coercive measures to prevent such a phenomena.

17. On the basis of the survey, the country reports, document E/CN.14/ECU/1 "Environmental Protection Legislation Needs for Africa" and document E/CN.14/ECU/3(a) - (g) entitled "Discussion Leaders Annotated Papers", discussions were held on the following topics:

18. Marine and coastal zone protection. In introducing the topic, the consultant pointed out that the item should be of interest to coastal and land-locked countries alike. The emerging law of the sea introduced additional territorial jurisdiction by virtue of the new concept of the exclusive economic zone, which would increase rights and obligations for coastal states, and burden still further their limited capacity to respond to management needs in the areas of natural jurisdiction. There were also provisions according rights to the land-locked countries of participation in the exploitation of living resources in the new zone. Thus those countries had a stake in the environmental quality of the marine and coastal area. The consultant also pointed out that some of the principles for coastal states management could usefully apply to coastal areas of large inland waters, like international lakes shared by more than one country. Furthermore land-locked, as well as coastal states, contribute to land-based sources of pollution, the major cause of coastal and marine pollution.

19. The meeting took note of the work carried out by UNEP and FAO on the legal aspects of marine pollution in the Gulf of Guinea and adjacent areas. The work of the UNEP Group of Experts on Environmental Legislation was also mentioned although it was found that its current programme of work on legal aspects of off-shore mining and drilling was not of paramount importance to the African countries for mere geophysical reasons. The Barcelona Convention and its protocols dealing with the Protection of the Mediterranean Sea against pollution were also recalled.

20. Several participants expressed their concern about the negotiation of unbalanced joint venture contracts with the transnational corporations.

21. One participant emphasized the human settlements problems specific to coastal zone development. Port towns, he said, were growing fast without adequate planning, resulting in acute congestion and deficiencies in urban infrastructure. Hinterland development was being neglected; there was need to develop port towns and their influence regions in a comprehensive and integrated manner.

22. Many participants called for regional co-operation, in particular (a) to specify conditions and modalities for land-locked States to realize rights of access to the sea, (b) to collect all necessary data for a complete assessment of the resources, (c) to exchange information on conditions made in joint venture contracts, (d) to monitor coastal and marine pollution and (e) to arrest contraveners of the law.

23. Natural biological resources legislation. After the topic had been introduced by the discussion leader, participants engaged in a debate that highlighted the following problems:

(a) Lack of planning requirements in the legislations of different African countries in that field;

(b) A lack of personnel to carry out protective functions laid down in various legislations; and

(c) Ineffectiveness of enforcement generally.

24. Participants considered the need to:

(a) Shift emphasis from the traditional preservationist attitudes towards harmonious utilization and management of natural biological resources, and more specifically, to strike a balance between utilization on the one hand and preservation on the other, so as to ensure rational economic exploitation of such resources for the development of the continent;

(b) Indicate to Governments that effectiveness of enforcement mechanisms in that section would greatly depend on the extent to which countries in Africa improved the living conditions of peoples;

(c) Include planning requirements in legislations in that sector, attention being paid to elaboration of institutional frameworks, the collection of the necessary data for the assessment and the conservation of natural biological resources as well as the review from time to time of the state of these resources.

25. Whether land tenure patterns were a key issue or not was a much debated matter. Several participants were of the opinion that public control of private property for the purpose of conservation, may well be achieved by developing the notion of the "social obligations of private property".

26. Wildlife legislation. In introducing the topic, the discussion leader pointed out that the discussion paper had been prepared with a view to being provocative enough to originate a debate. The paper did not necessarily represent the final conclusions of the study that FAO was preparing on the subject.

27. Many participants stressed that conservation and rational use, far from being at odds, were two complementary notions. The protection of the environment in general of wildlife resources in particular was perceived as the basis for long-term development.

28. The rational management and protection of wildlife, several participants said, were to be replaced in the broader context of land-use planning, bearing in mind that choices could not exclusively follow economic criteria when deciding on the allocation of the land to one use or another.

29. It was pointed out that, there again, the bottle-neck was at the enforcement phase. Innovative ideas were needed, one of them being the appointment of experienced local persons as honorary game wardens. However, the effectiveness of such a system would depend on sound training and education. Education and participation were found to be key issues in wildlife protection.

30. One participant mentioned that more attention seemed to have been paid by national legislation, to commercial, large-scale hunting and fishing, while individual and private actions had received less attention, although the latter were as destructive as the former. Another participant called for stricter regulation of hunting and fishing techniques such as the use of poisons or of electric and explosive devices.

31. Again, regional and global co-operation was called for. In that connexion, the World Conservation Strategy was mentioned, since it was committed to preserve essential ecological processes, preserve genetic resources diversity, and use the species in such a way that their survival was assured.

32. Mineral resources development legislation. The Seminar noted with encouragement, that the Lagos Plan of Action for the implementation of the Monrovia Strategy on the Economic Development of Africa adopted by Heads of State and Government of OAU member States in April 1980 provided basic guidelines for the future development of mineral and other natural resources in the African region.

33. Among the guidelines were, the fact that Africa's huge resources must be applied principally to meet the needs and purposes of its peoples; Africa's almost total reliance on the export of raw materials outside the region must change, and instead, those raw materials be used to support the development of the region so as to promote a regionally located, self-reliant and self-sustaining socio-economic development process; African countries should accelerate multicountry co-operation at various levels, including the pooling of their human and physical resources for the development of the African region.

34. In view of the above, the Seminar noted that an urgent review of existing legislations dealing with mineral resources development in the African countries was necessary to reflect the requirements of the Lagos Plan of Action. In particular, new legislation concerning the following main areas was considered important:

(a) Modalities for multicountry co-operation in mineral resources development;

(b) The roles of foreign transnational corporations in mineral resources development in Africa, and the monitoring of their activities;

(c) The roles in mineral resources development of the 80 per cent or more of the African population which resided in the rural areas;

(d) The control of environmental hazards in mineral development activities;

(e) The migratory labour from some of the independent countries of Africa to the mines of the Republic of South Africa.

35. The Seminar emphasized that continental co-operation in mineral resources development involving the pooling of local resources for the production of goods and services for the majority of the African peoples, constituted the most important basis for the improvement of the African environment.

36. The Seminar took note of the active role of ILO and UNEP to improve, through joint programmes, the working environment.

37. One participant pointed out that legislation was still insufficient concerning the choice of equipment to be used in land-strip mining activities. The choice of equipment might influence future possibilities for reclamation. Although such choices could be oriented by provisions in the contracts signed between Governments and transnational corporations, it was thought that such provisions should not, in any case, be a substitute for sound national legislation.

38. Pollution control legislation. The discussion leader made the following points in introducing the topic. Proposals for pollution control must in every country be drawn from an over-all environmental policy. Such a policy should in itself take account of Africa's fundamental concern, namely, that of rapid development. In short, in the attempt to develop, one must be careful to do so without ending up with the sorts of environmental problems which the industrialized world ended up with. For it was known that cleaning up the environment might be a more expensive exercise than prevention.

39. In very broad terms a system of sound pollution control should encompass two kinds of programming:

(a) Programming directed at the proper choice of development techniques. Such techniques whether borrowed or indigenous should be (i) adaptable to Africa's conditions, (ii) clean without being expensive, and (iii) capable of communication to the general public which in the final analysis was the prime factors in the development process;

(b) Programming directed at the formulation of an integrated management system. Management approaches might involve one or a combination of two of the following three options:

(i) That concerned mainly with the definition of minimum standards of conduct for those whose activities might in any way bear on the environment. That would mean, for example, that before use, industrial technology would have to be evaluated against quality standards and criteria drawn from an over-all national environmental policy. Similarly, ordinary human conduct should be subjected to evaluation and if need be to sanctions in the event of wilful damage to the environment;

(ii) That concerned mainly with the control of production or performance standards. That was the more popular option in Africa and underlay standards legislation in most countries. Such control being concerned mainly with the emissions, effluent disposal or of the quality of consumer products usually failed to control the primary source of pollution, namely, the production process itself;

(iii) That concerned mainly with structural intervention through institutions empowered to prescribe and administer standards drawn from an over-all national environmental policy. Many African countries had shied away from structural intervention because it was unpopular with investors and in any case tended to create institutions too powerful to be amenable to political control. Eventually, however, Africa had no option but to work towards that last option.

40. But however sound a policy was on paper, and whichever programming option was chosen, their effectiveness would in the final analysis depend on the degree of commitment which the politicians were willing to lend to those efforts. In most African countries that was what is lacking.

41. During the discussion, it was clear that the general view of participants was that law should not be concerned with prohibitions and sanctions for violation thereof per se. Law should be primarily concerned with facilitation of decision making compatible with sound environmental management. It should embody goals capable of achievement within a given economic context and should provide for a scheme of incentives in respect of compliance with those goals.

Among incentives suggested by participants were the following:

- tax rebates for industries that indicated sensitivity to environmental standards;
- tax deductions on imports or manufacturing of anti-pollution equipment;
- other forms of governmental subsidy especially in respect of industries willing to modify existing installations in comformity with environmental standards;
- encouragement to recycle wastes, since they were a very important source of investment for industry.

42. The participants agreed that constant monitoring for pollution both before and after development activity was important, but that it was unlikely to be effective unless:

- honest and comprehensive scientific advice was available;
- industries especially were encouraged to establish monitoring equipments within them, the operation of such equipment to be susceptible to independent vertificatio
- regional monitoring units were established to take care of transnational aspects o pollution control.

43. The participants were cautioned however, that political considerations might still frustrate efficient monitoring programmes.

44. It was pointed out that no amount of pollution control could be effective without an infrastructure of social welfare policy and legislation. They should take account of cultural susceptibilities and should take account, in an interdisciplinary manner, of total environment in which human activities took place.

45. The participants also cautioned that although industrial pollution was becoming a serious issue in Africa, it should be understood that industry as such was not yet the primary source of pollution in Africa.

46. It was also mentioned that the carrying capacity of the environment was also to be perceived as a resource. Therefore, environmental quality criteria should be imposed in conjunction with flexible effluent standards rather than relying on strict, uniform emission standards.

47. Environmental education legislation. The discussion leader pointed out that there was a lack of educational laws specific to environmental education. However the Seminar took note of the encouraging initiatives taken throughout Africa on formal education, including the inclusion of ecology, conservation and environment-related subjects in university programmes. The establishment of a regional institute for an integrated programme on environment, one participant said, could be another welcome initiative.

48. The representative of UNEP recalled the Tbilissi Conference on Environmental Education organized in 1977 by UNEP and UNESCO. He also recalled the efforts made by the United Nations system to promote environmental education in Africa. The Seminar's attention was brought to article XIII of the African Convention on the Conservation of Nature and Natural Resources (1968) which urged the contracting parties to develop conservation educational programmes and information campaigns. The ratification of that convention by all States of the region would help in promoting those important aspects.

49. Several participants stressed the fact that, although many countries conducted education and information programme through radio and television broadcasts and even through newspapers, they were generally a most ineffective means of disseminating information since these media sources reached only a very small percentage of the population. It was therefore thought that the increase of public awareness on environmental issues, through non-formal education programmes and the innovative use of existing institutions and officials, might be a more efficient method. The possibility of organizing information campaigns prior to the drafting or before the implementation of environment-related laws and regulations was mentioned. One participant also referred to the organization in several countries of an environment day or week.

50. Several participants emphasized the paramount importance of campaigns to eradicate illiteracy if environmental education was to become efficient. A number of participants also mentioned the opportunity to organize programmes in local languages.

Human settlements, cultural heritage and land use legislation in Africa

51. In introducing his paper, the discussion leader highlighted the following points:

(a) The ultimate objectives of all development endeavours was to improve man's environment and quality of life;

(b) The contemporary African city had not kept pace with the massive urbanization;

(c) Africa had had an age-old and rich heritage of both rural and urban cultures;

(d) Land was a precious endowment and should therefore be put to rational and optimum use and it was necessary to have a unified system of land policy, land-use programme and land use legislation;

(e) Comprehensive land use planning was a pre-requisite to the development of land in both urban and rural areas.

52. The discussion leader identified the shortcomings of the land use legislation in selected countries of Africa and advocated:

(a) Reviewing and updating the existing land use legislation;

(b) Incorporating building bye-laws, subdivision regulations, zoning ordinances and sanitary codes, etc. into over-all development plans of urban places.

53. One participant suggested that cadastral work should be undertaken before land-use classification and land-use allocation were decided upon. There was a general conscensus that in the development of human settlements every effort should be made to conserve the areas and buildings of cultural significance, historical importance and architectural merit.

54. It was generally agreed that several urban development plans had been prepared but what was lacking was their implementation, owing to constraints of finance, technical manpower and legal support. It was suggested that the tools for implementation should be built into the master plan itself. It was also observed that it was adequate to prepare structure plans or simplified/outline development plans which were realistic and financially reliable.

55. One participant noted that the present physical planning and housing endeavours were urban-oriented and that the policy should be rural-biased. He advocated a rational land distribution programme, in addition to a land policy, with a view to securing an equitable distribution pattern. It was the consensus of the Seminar that "neighbourhood concept" was not suited to serve as a basis for development of residential areas. Another participant stressed that there could be no effective land-use policy without a suitable land tenure system.

56. It was generally agreed that human well-being should be the basic objective of land-use planning and land-use legislation. Several examples of irrational and wasteful uses of land in urban areas necessitating heavy investment of scarce capital resources were cited. That was attributed to over-emphasis on national prestige, wrong national priorities and imposing alien ideas and methods on indigenous communities.

57. The Seminar was of the view that a new concept and a more rational approach to site-and - services schemes and upgrading programmes was needed. It was necessary to ensure the well-being of the affected community through resettlement and rehabilitation.

58. In view of the importance and all pervasive nature of the following three topics, the meeting decided to concentrate on those topics separately from the discussion of specific recommendations, the summary of which appears in Part C of this report. The following points emerged from the discussions.

59. Institutional framework. Several participants pointed out that many countries had felt the need to establish central bodies for environmental protection. Such bodies were either bodies with executive powers such as agencies, ministries or departments, or mainly advisory bodies or institutions concerned with co-ordination matters such as an environmental protection council. The establishment of new bodies could, it was mentioned, be an opportunity to rationalize public administration.

60. A number of participants were of the opinion that every caution should be exercised prior to proposing the establishment of new bodies, especially when thinking about the creation of central environmental protection organisms with executive powers. The important thing was that environmental aspects be duly taken into consideration by all sectoral institutions concerned. In any case, better use of existing bodies should be sought before considering the establishment of new ones or the adoption of new legislative texts.

61. Several participants mentioned that the institutional framework might have to be extended to the regional level, many environmental problems, knowing no political boundar: It was also mentioned that a certain degree of decentralization might be necessary.

62. Legislative process and the role of law. One participant recalled what had been said earlier about the interrelationship between customary practices and the enforcement of sound environmental protection legislation. Another participant stressed the importance of making a detailed inventory of existing traditional rules as well as of legislative and regulatory provisions in force, in order to make an in-depth analysis of the legal tools available to each country concerned.

63. Several participants emphasized the need for extensive compliance with the law (the concept of légalité), pointing out that Governments and public officials were not always abiding by laws and regulations they had themselves formulated.

64. Environmental impact analysis. The meeting pointed out that it was necessary to draw a line between two different, although connected, aspects. First, it envisaged the concept of environmental impact assessment, initial evaluation made of the possible effects that a proposed project on activity as well as its alternatives might have on the environment. Secondly, it involved the precise techniques such as sampling, establishment of standards, definition of criteria to measure and control environmental impact. On the latter aspect, the meeting heard a short presentation of the activities carried out by the African Regional Organization for Standardization (ARSO) and of its capacity, as well as UNEP's to answer requests for assistance made to them by the African Governments concerned.

65. The meeting considered and reformulated for adoption the specific recommendations submitted by the secretariat in the background document E/CN.14/ECU/2.

D. RECOMMENDATIONS AND GUIDELINES

66. (a) Institutional framework. Many African countries now had some machinery to deal with environmental matters, either at the national or at the local level. However there was still a need for strengthening or for establishing institutions for:

(i) The sound assessment of natural and human resources;

(ii) The formulation, planning promotion, implementation, co-ordination and monitoring of environmental policies;

(iii) The review and evaluation of the effects of such policies.

Governments should incorporate environmental provisions and policies into their development planning. It was therefore recommended that countries should identify existing environmental institutions, strengthen them, or where absent, establish an appropriate institutional framework.

It was also recommended that African Governments should support the existing Intergovernmental Regional Committee for Human Settlements to enable it to fulfil the above recommendations at the regional level, whenever necessary.

(b) Legislative process and role of law

(i) The observable trends were that existing laws were rule-oriented and as as result, in spite of their existence, abuses on the environment were common. It was recommended that environmental legislation, in order to be comprehensive and effective, must be management-oriented;

(ii) Environmental legislation should be designed to:

a. Facilitate compliance with environmental management standards;

b. Harmonize national rules to conform with regional standards and criteria for environmental quality control;

c. Promote and increase public awareness of the need for sound conservation;

(iii) It was further recommended that the law and lawyers should be considered as an integral part of the process of formulating and developing policies for the environment and should be involved in every stage of the process;

(iv) The process of developing environmental legislation must be based on scientific principles, such as problem identification and data collection followed by development of policy options for the decision makers to formulate the law and its enforcement method.

(c) Environmental impact analysis:

(i) African Governments should establish adequate procedures to carry out an effective assessment of proposed development activities likely to have significant impact on the environment;

(ii) As a prerequisite for conducting that exercise, performance standards relevent to the African environment should be set up, based on an adequate scientific and technological data base. In that connexion appropriate institutions such as national standards boards and national research councils should be established in each country to determine environmental standards and criteria as a basis for decision making;

(iii) It was noted that only 21 African countries were now members of the African Regional Organization for Standardization (ARSO) and it was recommended that all States members of ECA and OAU should become members of ARSO in order to achieve harmonization of national standards in the region.

(d) Environmental education and training

Governments should give greater prominence to promoting formal and non-formal educational activities with a view to creating and enhancing public awareness of the need to manage the environment rationally, and to disseminating information on environmental matters.

In that regard, it was recommended that African Governments bear in mind article XIII of the African Convention on the Conservation of Nature and Natural Resources (1968) and seriously consider ways and means of implementing this provision, including formulation of legislation to that effect, at both national and local levels.

(e) Land use

Legislation for comprehensive land use planning in Africa was generally directed towards development in urban areas, to the neglect of the rural areas. Although opportun existed in some African countries, during public discussion on land use planning, to infu environmental considerations into development projects, yet existing legislation must be improved to make adequate provision for the protection of the land from mismanagement during exploitation of natural resources or for its rehabilitation after exploitation.

(f) Forest conservation

African Governments were urged to up-date forestry laws and regulations to cater for the rational management of forest products and habitats. They should also provide for the regulation of forest related trade, and for the eradication of practices such as wildlife destruction, forest depletion, timber smuggling and widespread deforestation arising from firewood and charcoal production through policies to cater for alternate sources of fuel and building materials.

The law enforcement sector should be strengthened by increasing the manpower to police forest reserves, by instituting training programmes on conservation, and by adopting measures to combat violation of conservation laws and regulations.

Furthermore, forest conservation policies must ensure a meaningful life for the inhabitants of forest areas.

(g) Wildlife

African Governments should progressively develop their wildlife conservation legislation to cope with poaching and the trade in live wildlife and products derived therefrom, to ensure rational management and habitat protection.

Governments were requested to ratify the International Convention on Trade in Endangered and Threatened Species (1973) and other relevant conventions and protocols.

Law enforcement for wildlife conservation should be strengthened. Governments could use the revenues derived from hunting licences and from taxes on the development of hotels, sight-seeing tours, scientific stations in national parks and game reserves for the implementation of the laws.

(h) Protected areas

African countries were urged to enlarge or to set up in the framework of land use planning certain terrestrial and marine areas to protect representative ecosystems.

(i) Coastal zone and marine resources management

There were gaps in the legislation for the protection of coastal areas in Africa concerning in particular tidal swamps, and the continental shelf, from shore-based industrial activities causing marine pollution. In view of the fact that African Governments under the Convention of the Law of the Sea would be entitled to create a new Exclusive Economic Zone (EEZ) and the necessity for the effective policing of the zone to prevent marine pollution arising from oil and other dangerous chemicals dumped from ships, African Governments were urged to promote regional co-operation and, for those which had not yet done so, were urged to ratify the relevant international conventions and protocols. They should also develop the appropriate national legislation and machineries to protect coastal areas from marine pollution in order to combat, for example emergency oil spills and to prevent depletion of fisheries. Land-locked countries in Africa with navigable lakes should also enact similar legislation to protect wetlands and natural resources in them, in agreement with other riparian States.

(j) Minerals development

Most African countries whose economies were based on the mining of minerals as well as on the exploitation of oil and gas had adequate legislation to protect workers' health in the disposal of mining site wastes (overburden and refuse) and mineral extraction wastes (polluted water and tailings). However, legislation for the restoration of mined-out sites was generally lacking or inadequate. Legislation to rehabilitate the land must be enacted to take care of the restoration of the top soil after levelling of the site, removal of toxic metals not mined but accumulated in the tailings which can be absorbed by crops grown on the site, and revegetation of areas to restore their original aesthetic quality and economic usefulness.

(k) Water quality

African countries which already had water resources management legislation, were urged to see to its enforcement in order to prevent water wastage and urban, agricultural and industrial pollution.

Those countries which did not have such legislation were urged to endeavour to formulate, within reasonable time limits, a regulation appropriate for their needs conducive to the conservation of their water resources and to the attainment of the most favourable quality criteria.

Water legislation must emphasize in particular, quality control of solid and liquid effluents, in conformity to international criteria accepted by WHO.

(l) Air quality

In view of the steady increase in air pollution in African countries, due to certain agricultural and industrial activities, and to the growth of motor and air traffic, governments should urgently formulate appropriate legislations to control noxious emissions which poisoned the air, kill the vegetation, caused the landscape to deteriorate and, more generally, harmfully affected the quality of life and human health.

(m) Solid wastes and other specific substances

The majority of African countries required legislation for the regulation of all solid wastes and liquid effluents from factories. At present, they were discharged into rivers and streams, causing serious pollution, especially from agro-based industries. There was also a great need for legislation to regulate the use of pesticides, insecticides, fertilizers, toxic metals and organic compounds and radioactive materials. In the few countries where such legislation existed, it should deal not only with the safety and health of the people, but also with regulating environmental quality.

(n) Noise

Although some African countries had legislation to regulate traffic noise from vehicles, there was no control of noise from other sources such as industrial machinery in factories, drilling at road works and at other construction sites. There was need for legislation to regulate noise levels on a scientific basis for the protection of the health of the workers and the general public.

(o) Cultural environment. As only a few African countries had legislation for the preservation of historical sites, ancient monuments and relics, and antiquities, there was an urgent need for African countries to legislate for the preservation, restoration, reconstruction and registration of those items and historical buildings. Also, archeological excavations should be controlled by licences, and all artifacts found and registered by law.

(p) Population and urban development. Most African countries had legislation on town and country planning to regulate urban development and prevent slums and shantytowns, but they seemed to have been ineffective. Governments should therefore strengthen or, if necessary, modify existing laws.

Legislation to promote rural development was generally lacking; hence, Governments should promote integrated rural development as incentives to prevent the migration of the rural population to urban areas. Also, workers in Africa should be protected by law under a social security scheme, not only in the case of disability resulting from accidents at work, but for old age benefits and pensions.

(g) Food and drug quality. Many African countries already had legislation to control food or drug quality or both. Facilities were generally lacking for analytical laboratories and bureaux of standards, and on monitoring of imported and locally manufactured food and drugs. There was the need for African Governments to legislate for the establishment of new, or strengthening of existing national bureaux or boards of standards and analytical laboratories, the training of the required manpower and the provision of adequate laboratory equipment and work facilities.